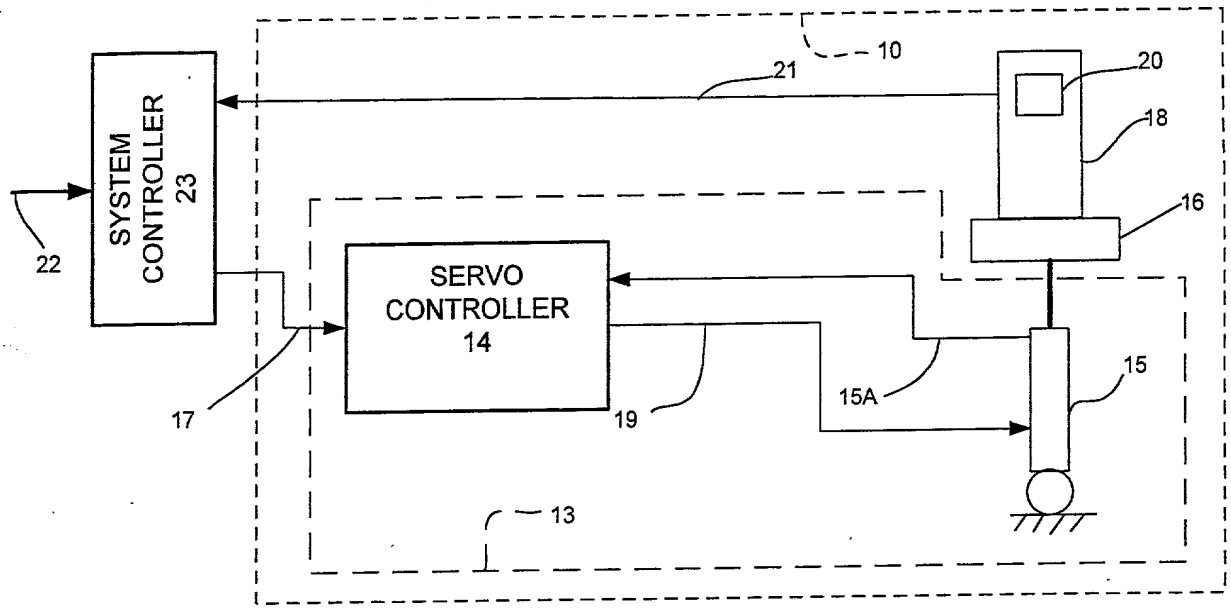

SYSTEM CONTROLLER 23
22
10
21
20
18
16
SERVO CONTROLLER 14
17
19
15A
15
13

FIG.1

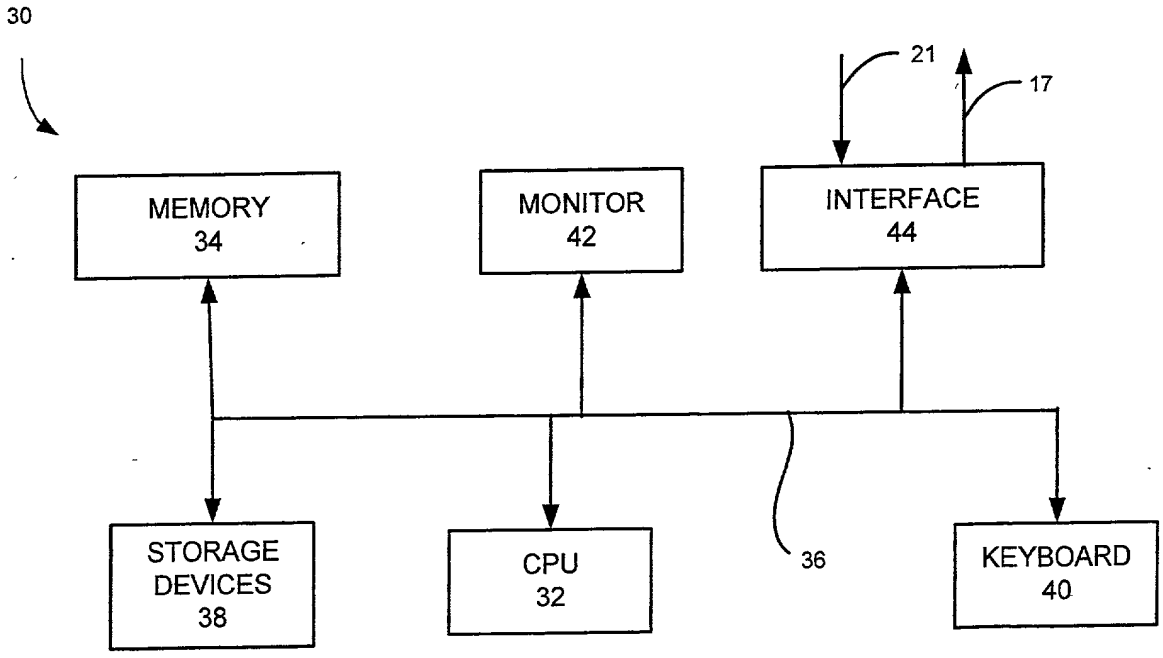

30
21
17
MEMORY 34
MONITOR 42
INTERFACE 44
STORAGE DEVICES 38
CPU 32
36
KEYBOARD 40

FIG.2

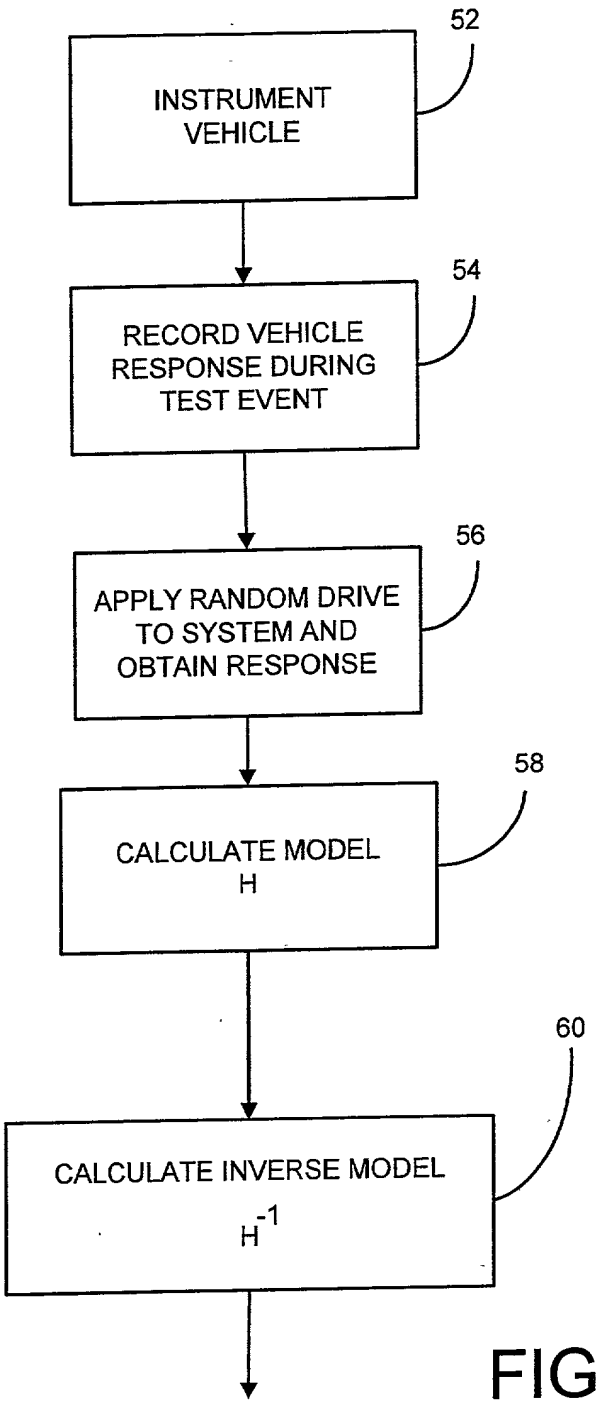
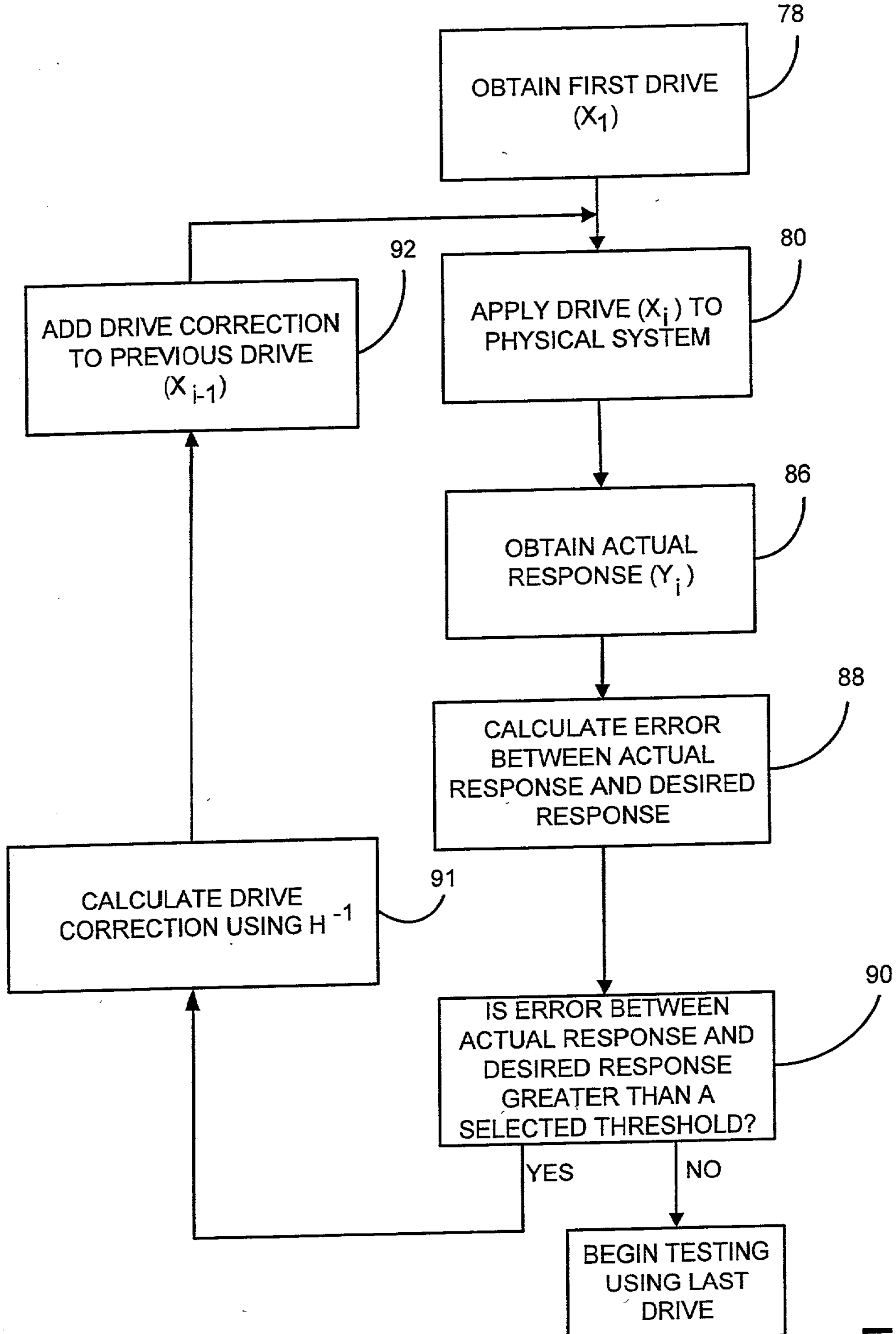


FIG. 3A

FIG. 3B
OR
FIG. 3C



OBTAIN FIRST DRIVE (X_1)
78
APPLY DRIVE (X_i) TO PHYSICAL SYSTEM
80
OBTAIN ACTUAL RESPONSE (Y_i)
86
CALCULATE ERROR BETWEEN ACTUAL RESPONSE AND DESIRED RESPONSE
88
IS ERROR BETWEEN ACTUAL RESPONSE AND DESIRED RESPONSE GREATER THAN A SELECTED THRESHOLD?
90
YES
NO
BEGIN TESTING USING LAST DRIVE
CALCULATE DRIVE CORRECTION USING H^{-1}
91
ADD DRIVE CORRECTION TO PREVIOUS DRIVE (X_{i-1})
92

FIG. 3B

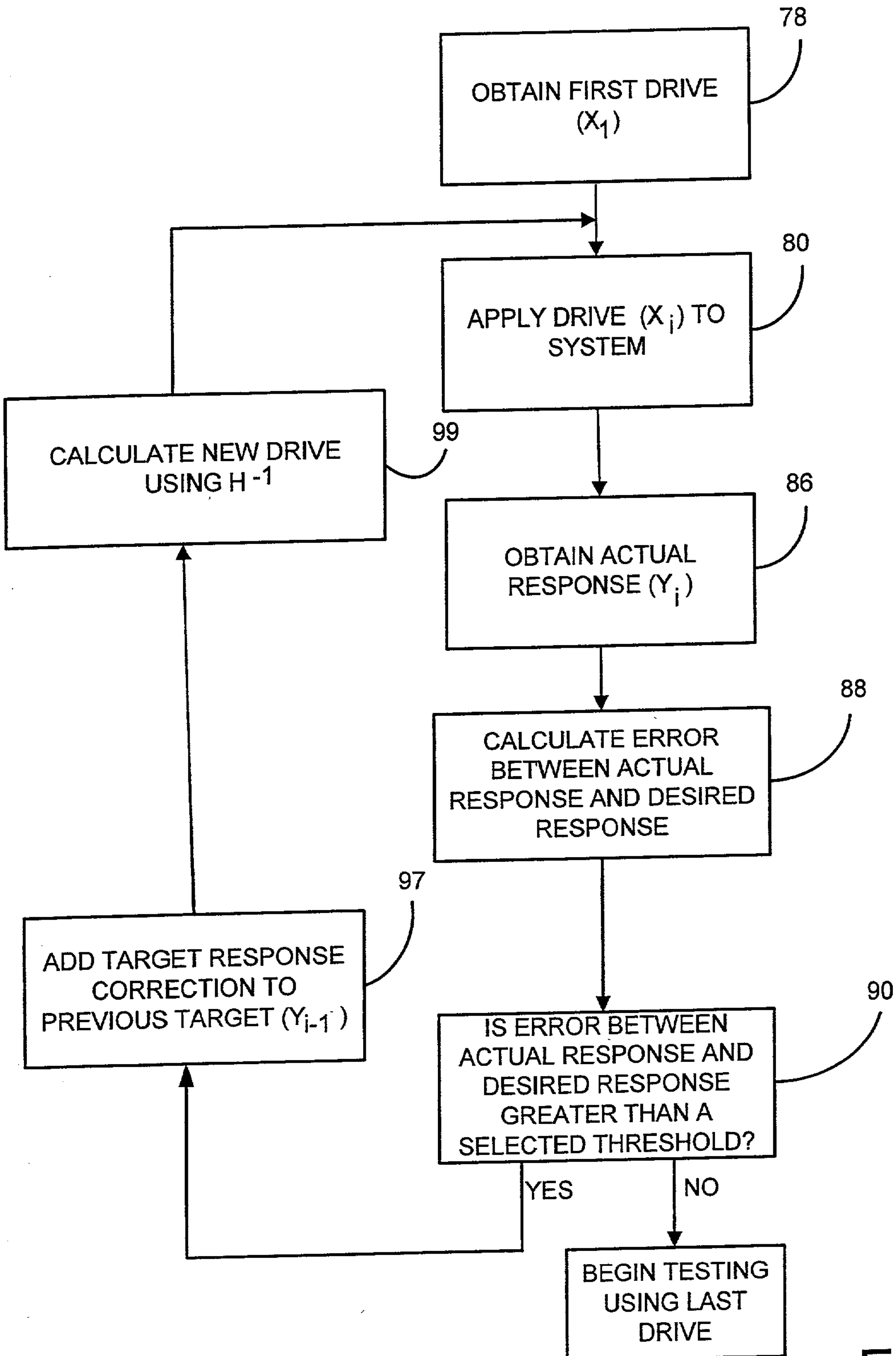

78
OBTAIN FIRST DRIVE (X1)
80
APPLY DRIVE (Xi) TO SYSTEM
99
CALCULATE NEW DRIVE USING H -1
86
OBTAIN ACTUAL RESPONSE (Yi)
88
CALCULATE ERROR BETWEEN ACTUAL RESPONSE AND DESIRED RESPONSE
97
ADD TARGET RESPONSE CORRECTION TO PREVIOUS TARGET (Yi-1)
90
IS ERROR BETWEEN ACTUAL RESPONSE AND DESIRED RESPONSE GREATER THAN A SELECTED THRESHOLD?
YES
NO
BEGIN TESTING USING LAST DRIVE

FIG. 3C

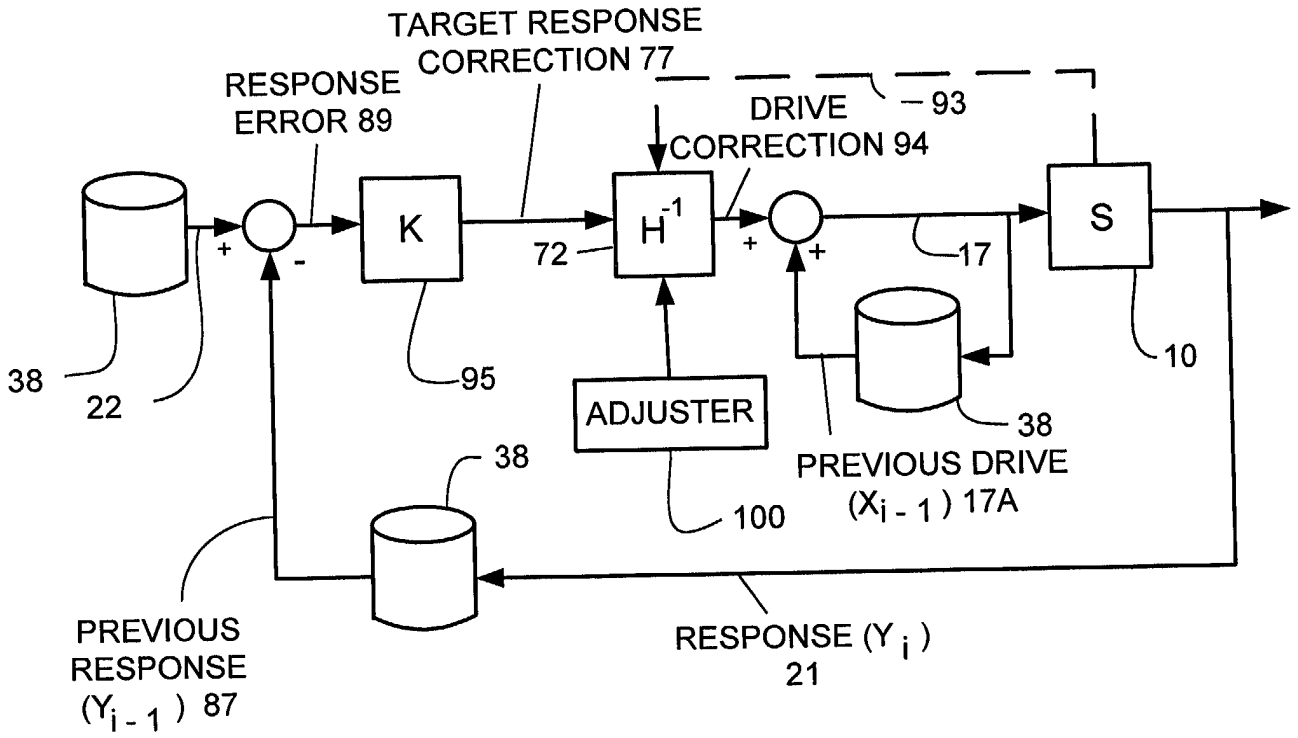


FIG.4A

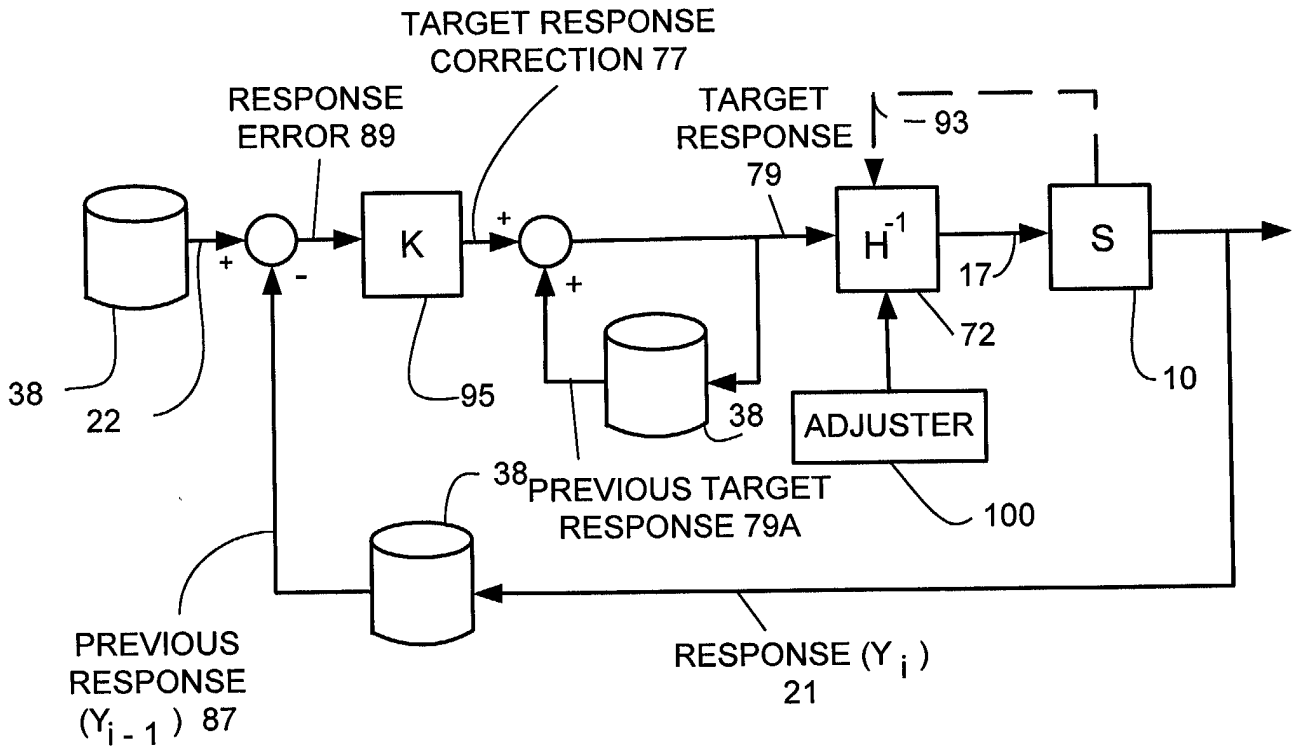


FIG.4B

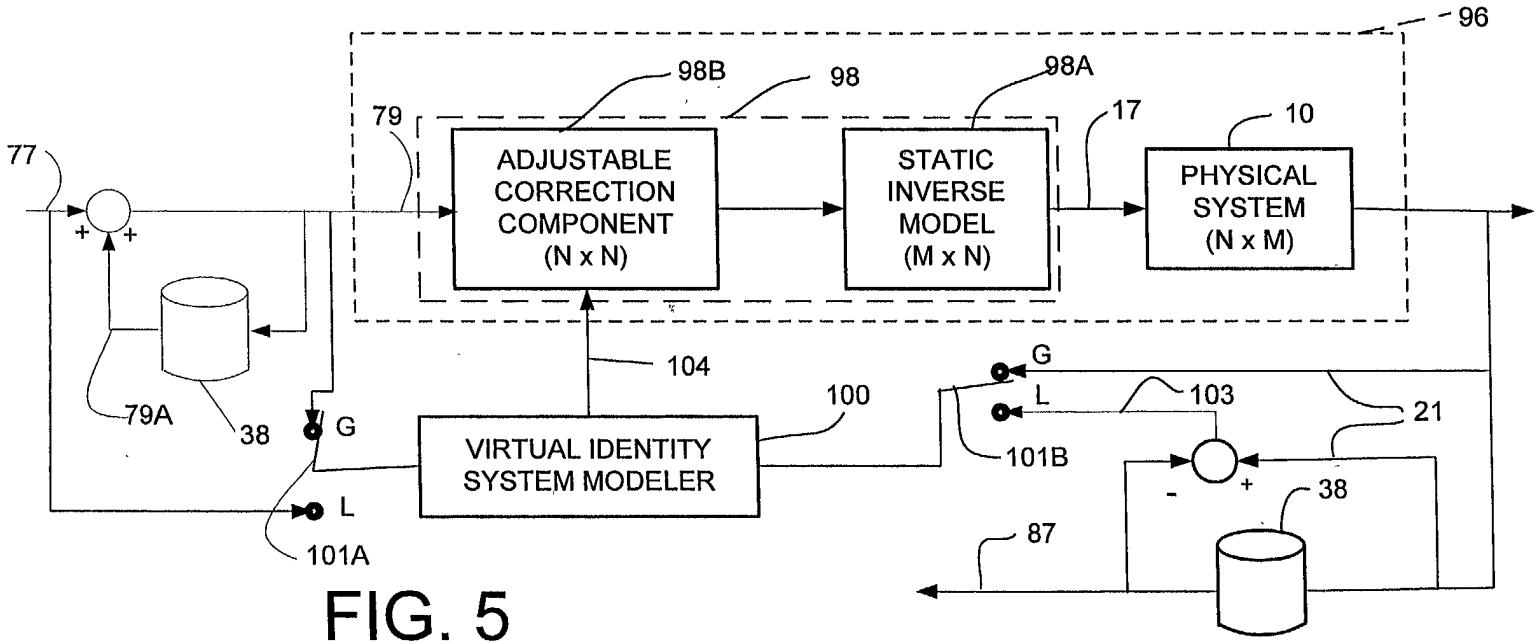


FIG. 5

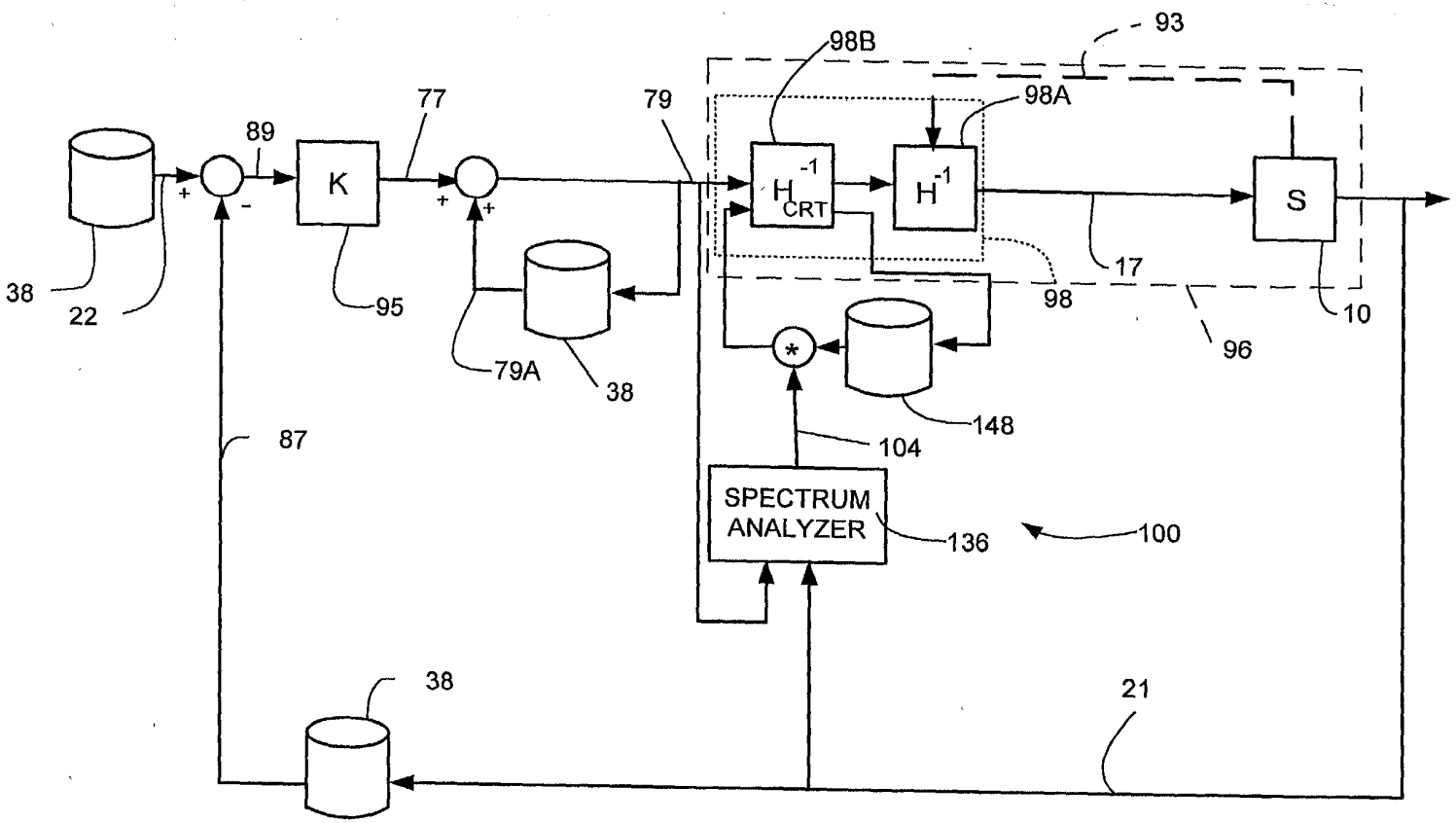


FIG.6

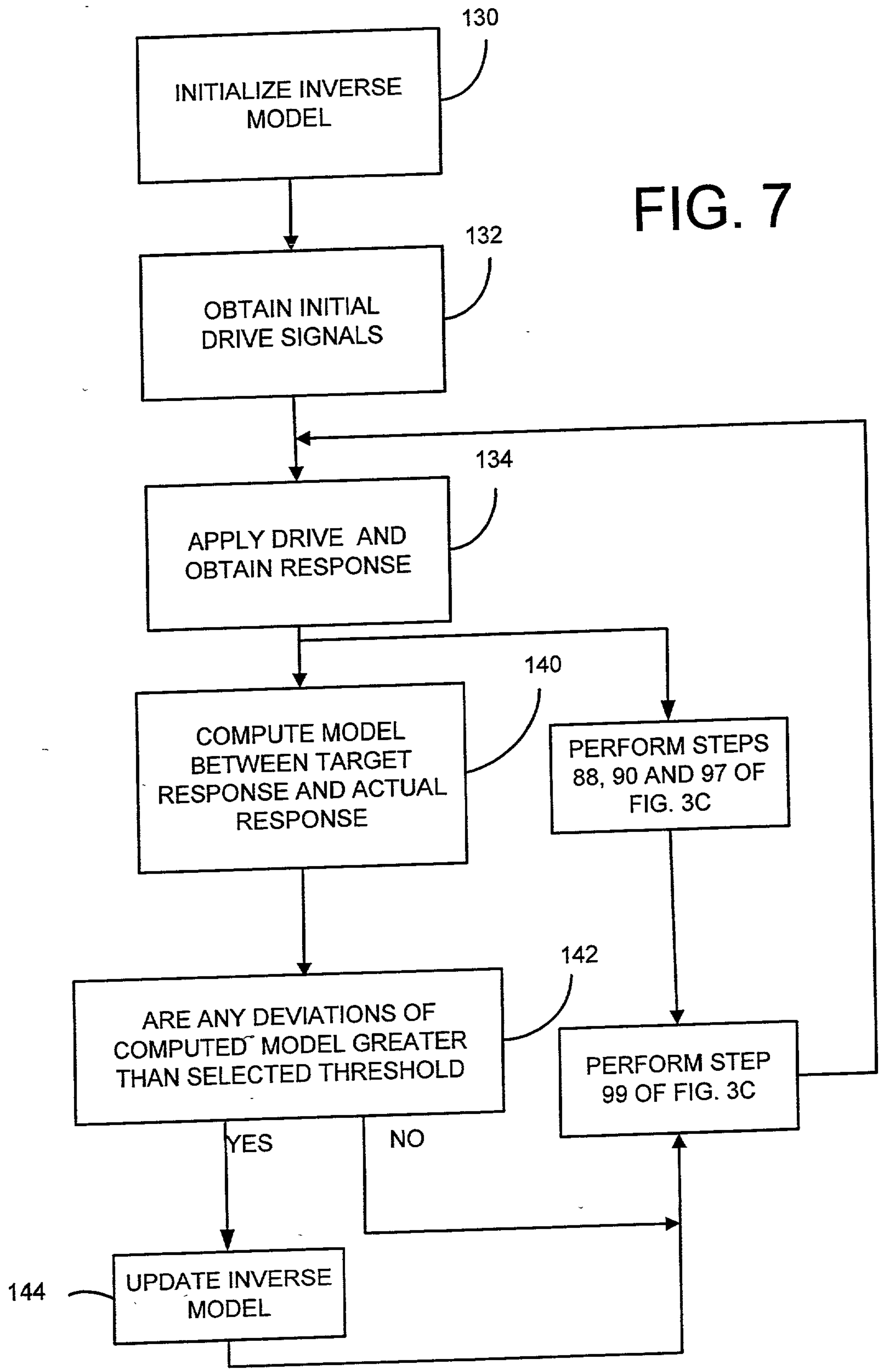

130
INITIALIZE INVERSE MODEL
132
OBTAIN INITIAL DRIVE SIGNALS
134
APPLY DRIVE AND OBTAIN RESPONSE
140
COMPUTE MODEL BETWEEN TARGET RESPONSE AND ACTUAL RESPONSE
PERFORM STEPS 88, 90 AND 97 OF FIG. 3C
142
ARE ANY DEVIATIONS OF COMPUTED MODEL GREATER THAN SELECTED THRESHOLD
PERFORM STEP 99 OF FIG. 3C
YES
NO
144
UPDATE INVERSE MODEL

FIG. 7

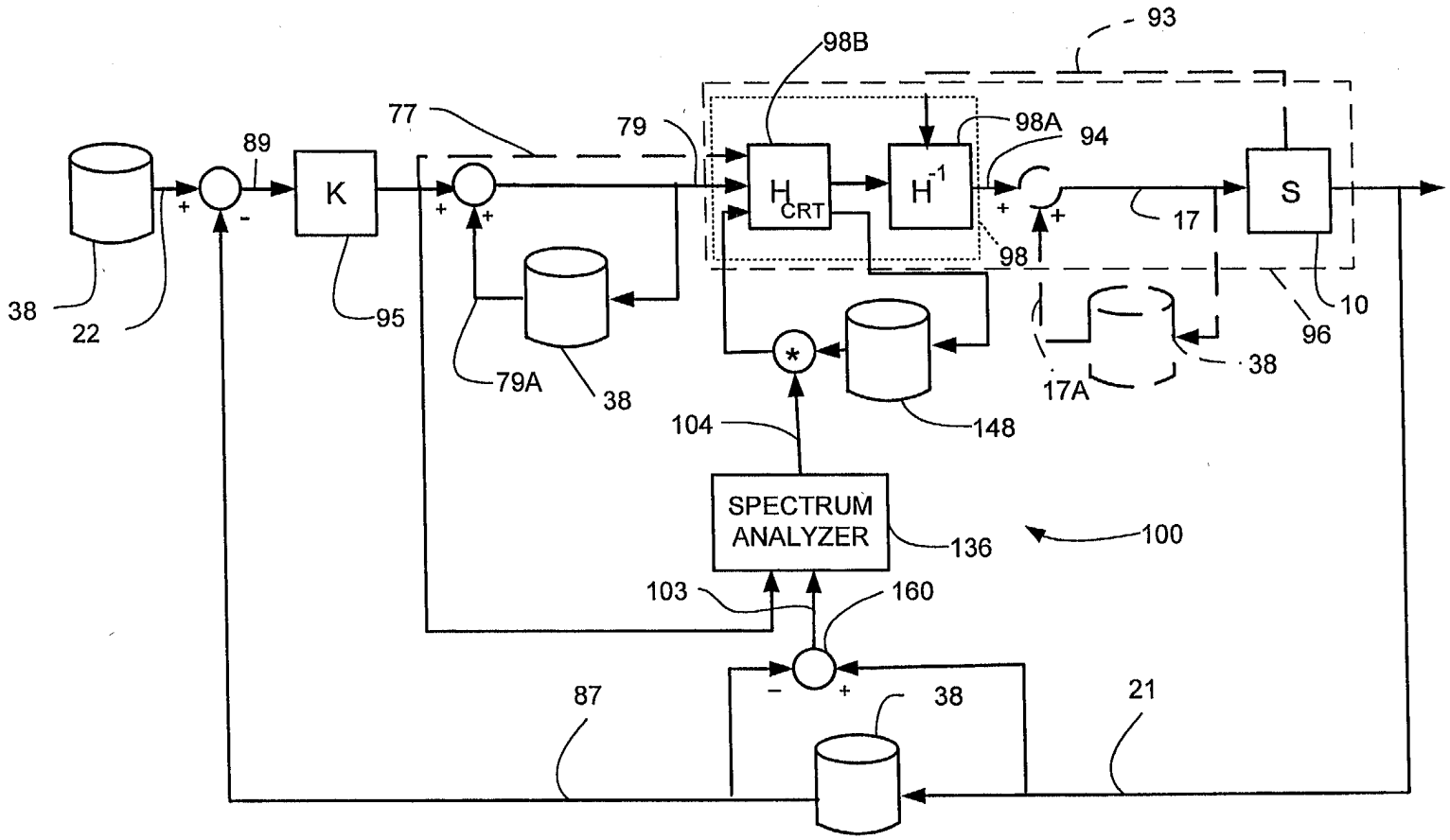


FIG.8

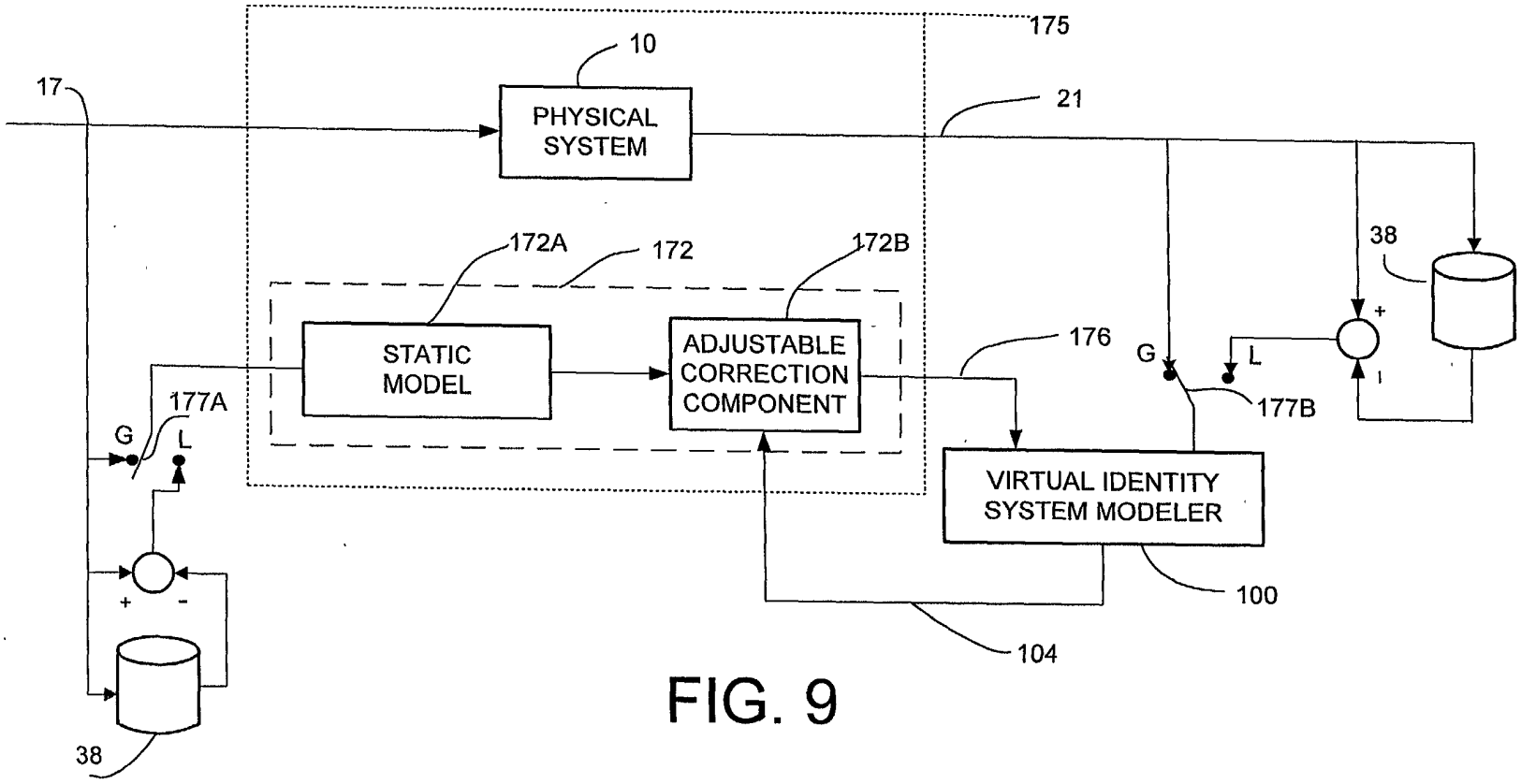


FIG. 9

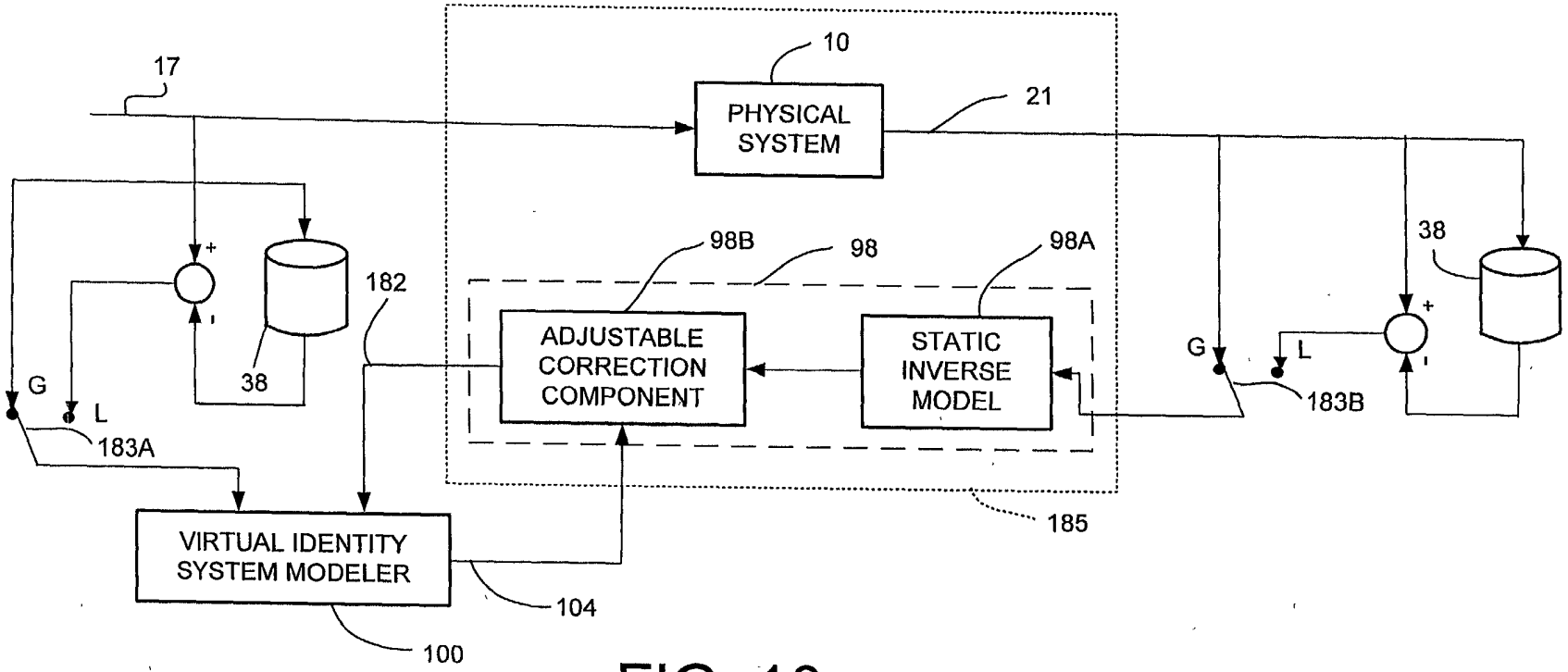


FIG. 10

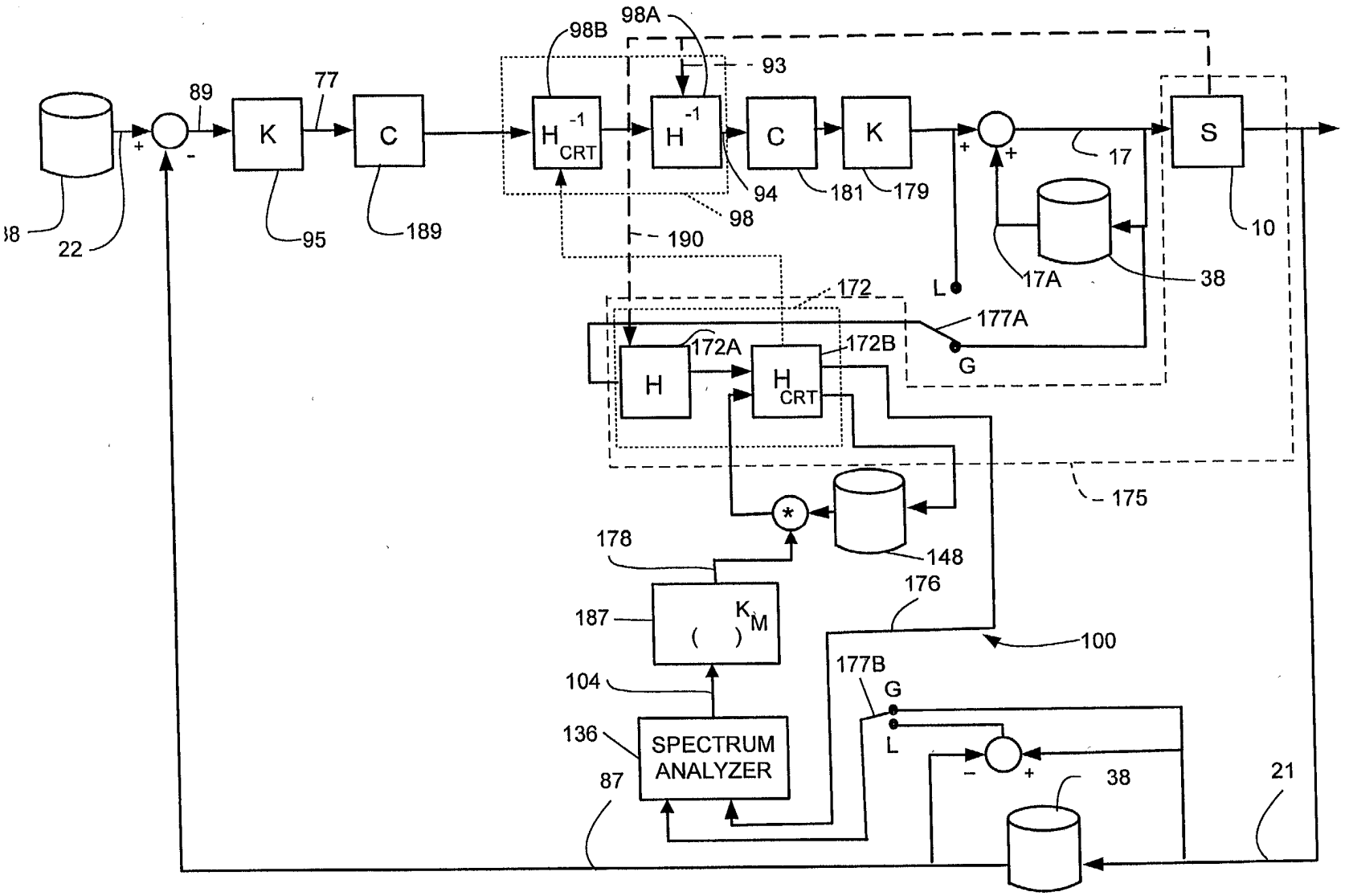


FIG.11

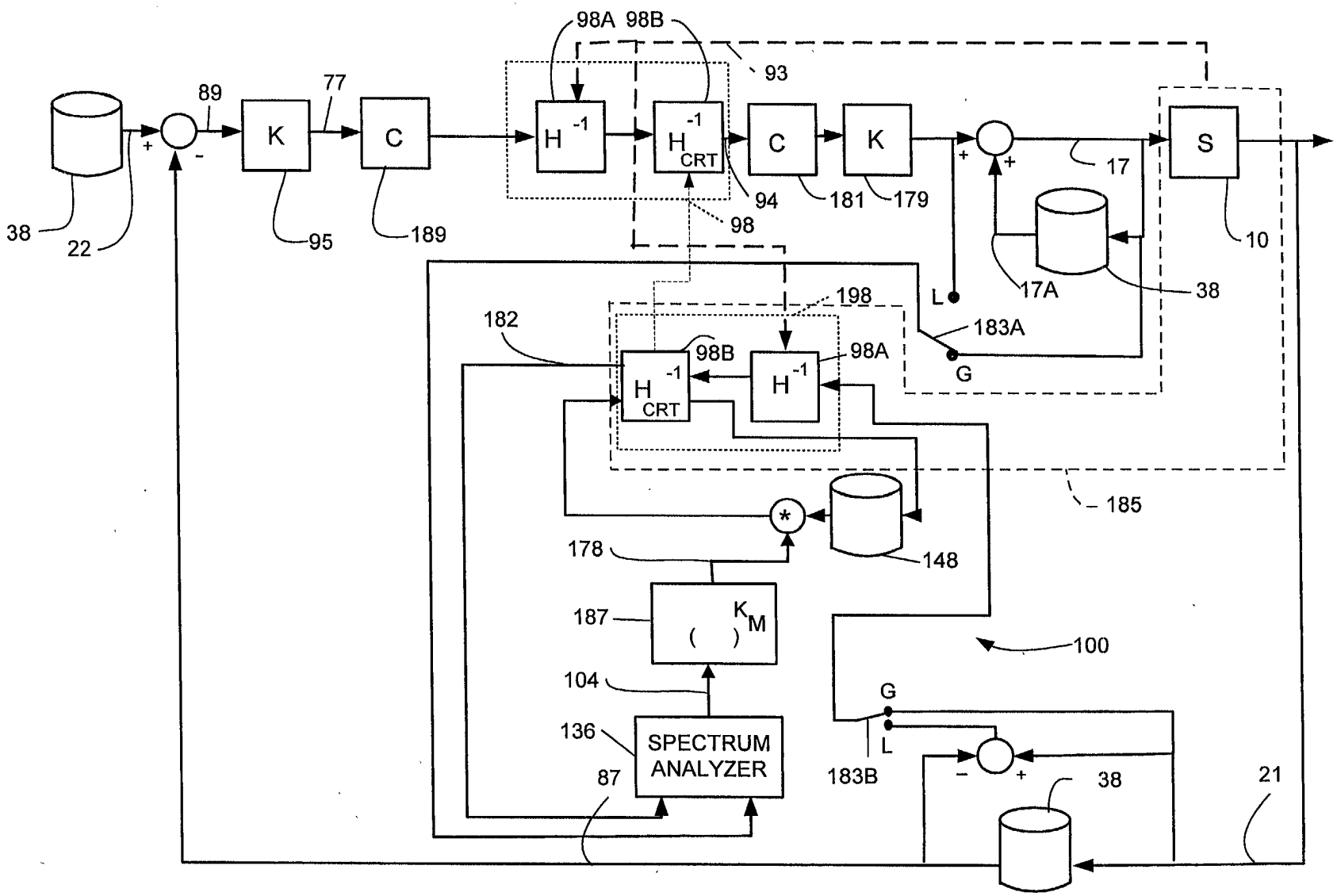


FIG.12

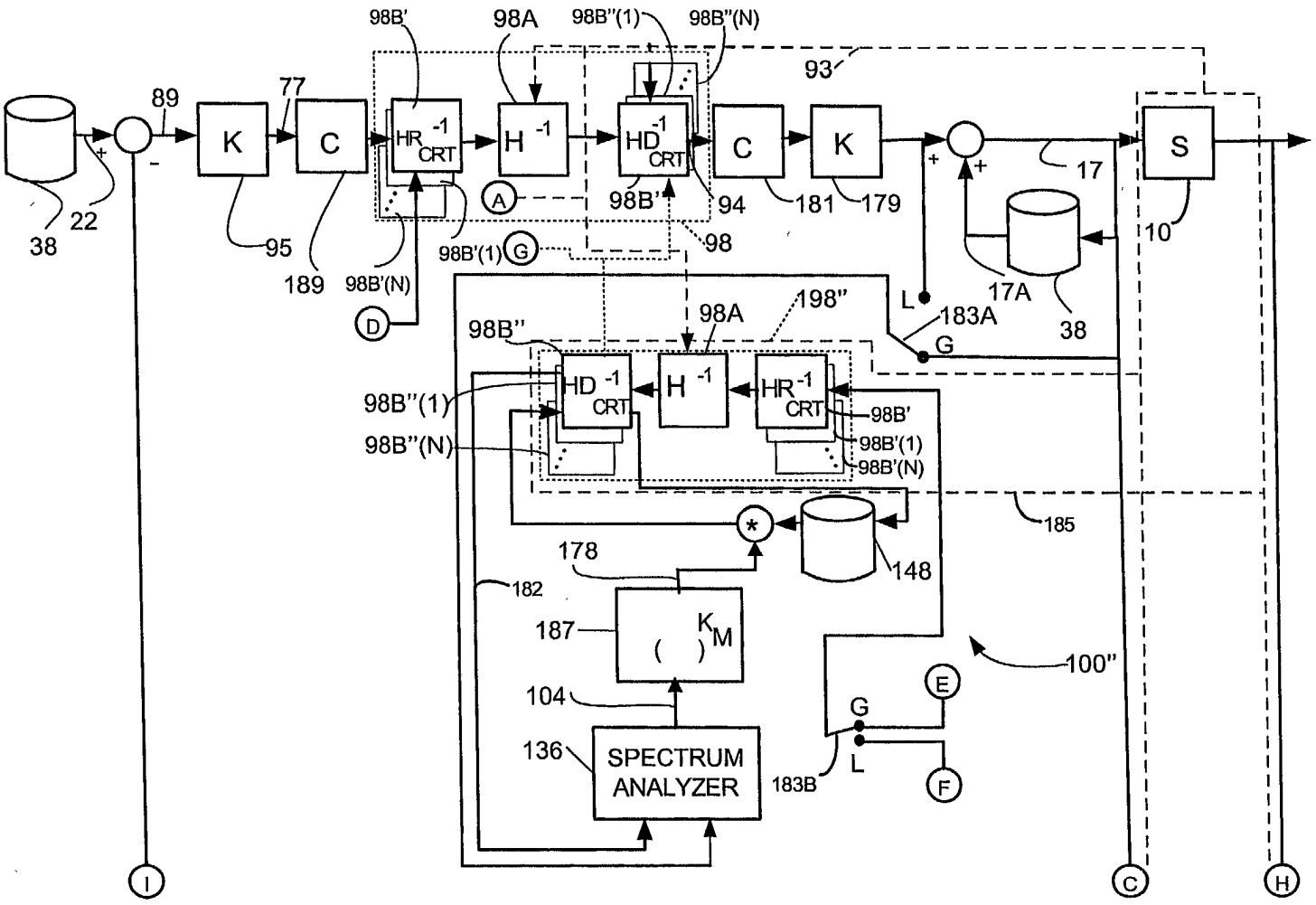


FIG. 13A

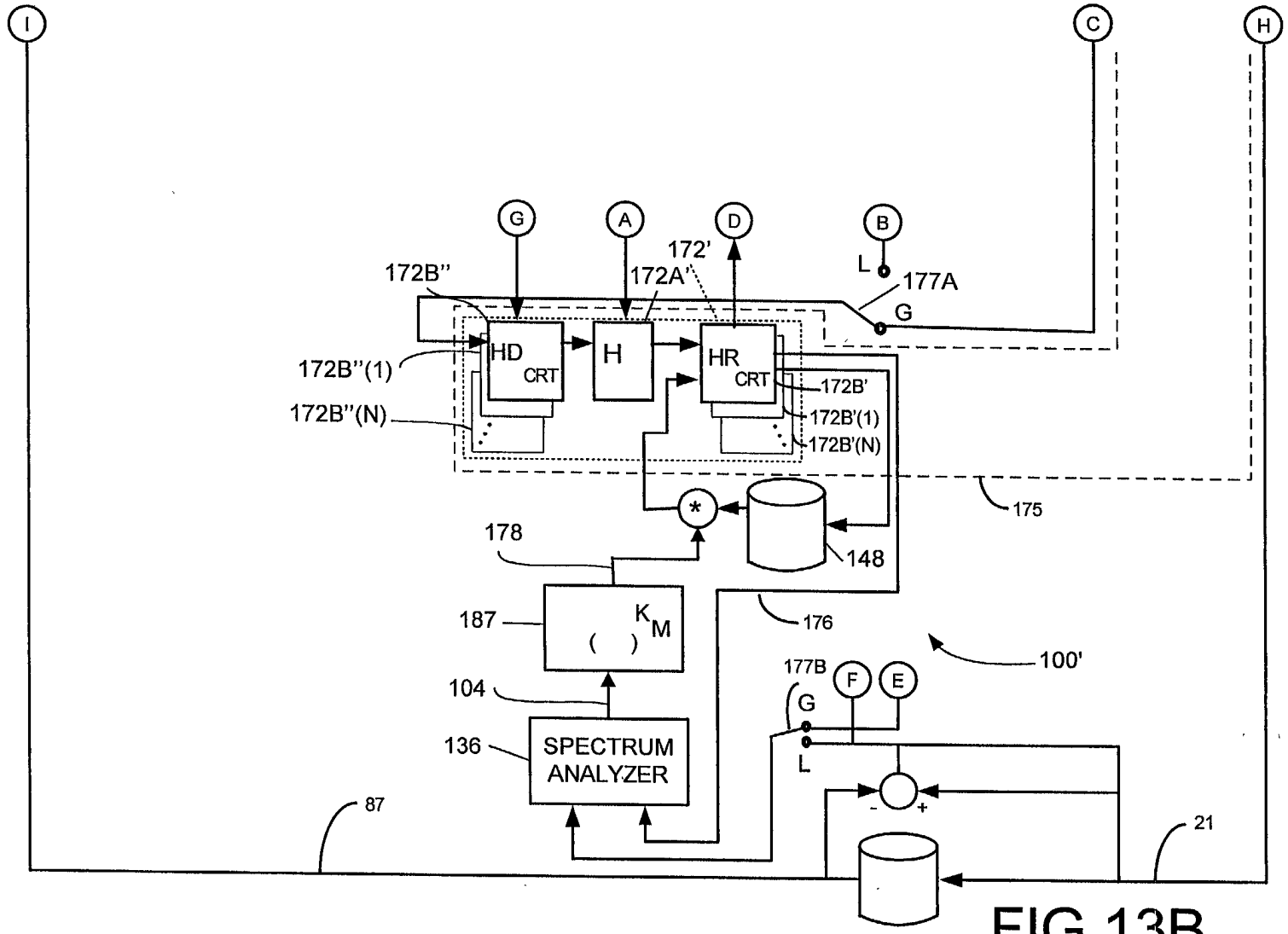


FIG 13B

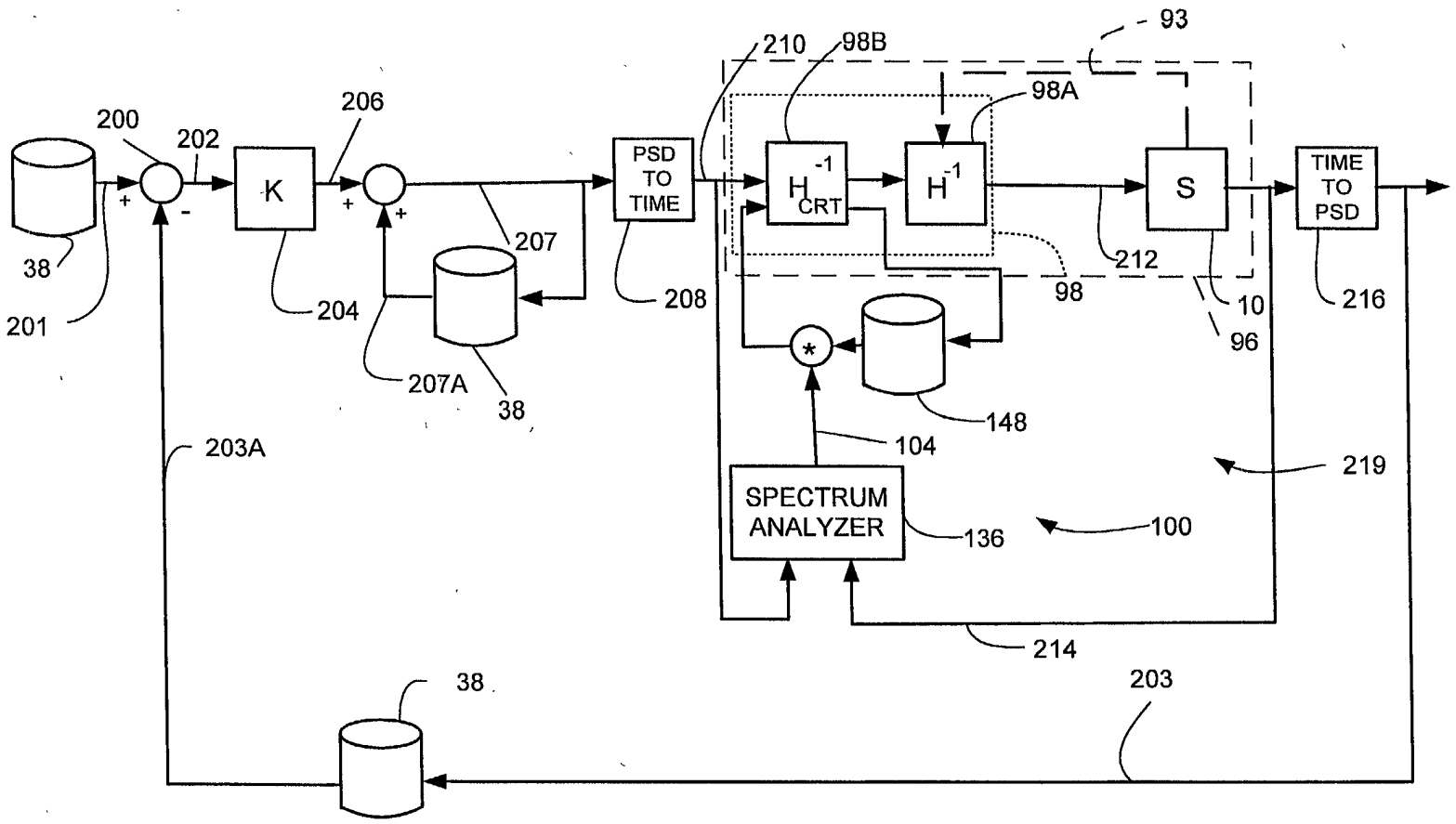


FIG. 14

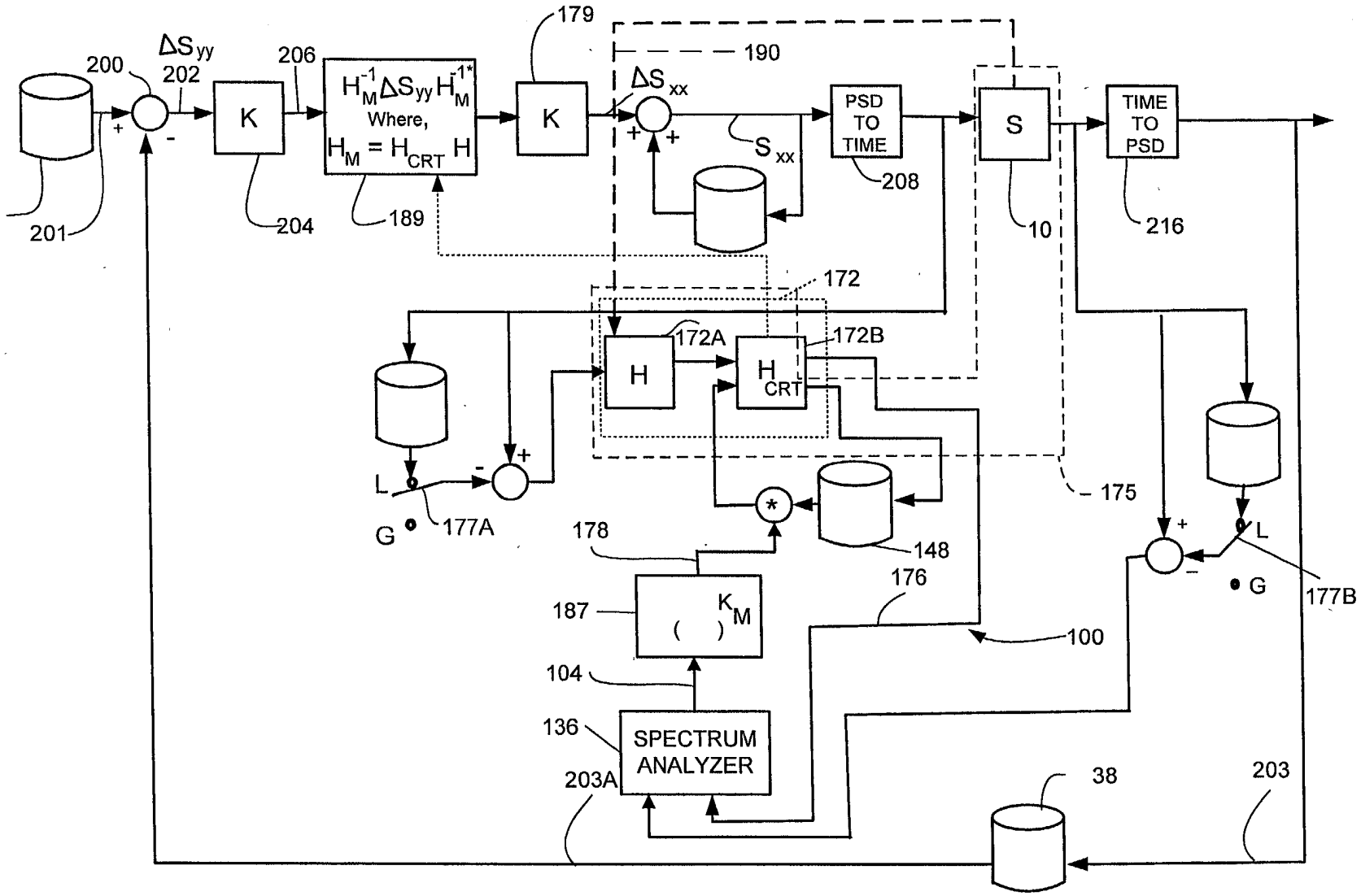


FIG.15

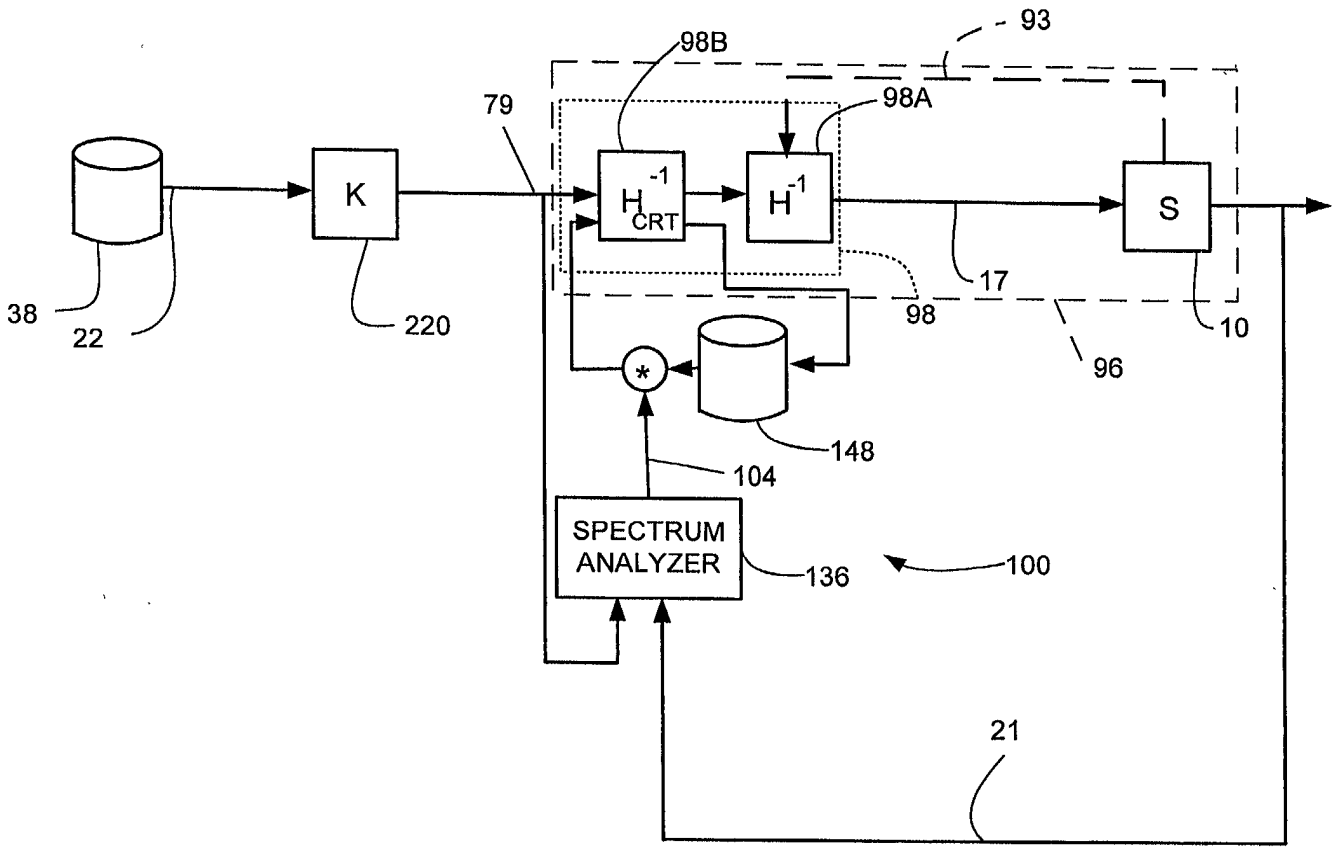


FIG. 16

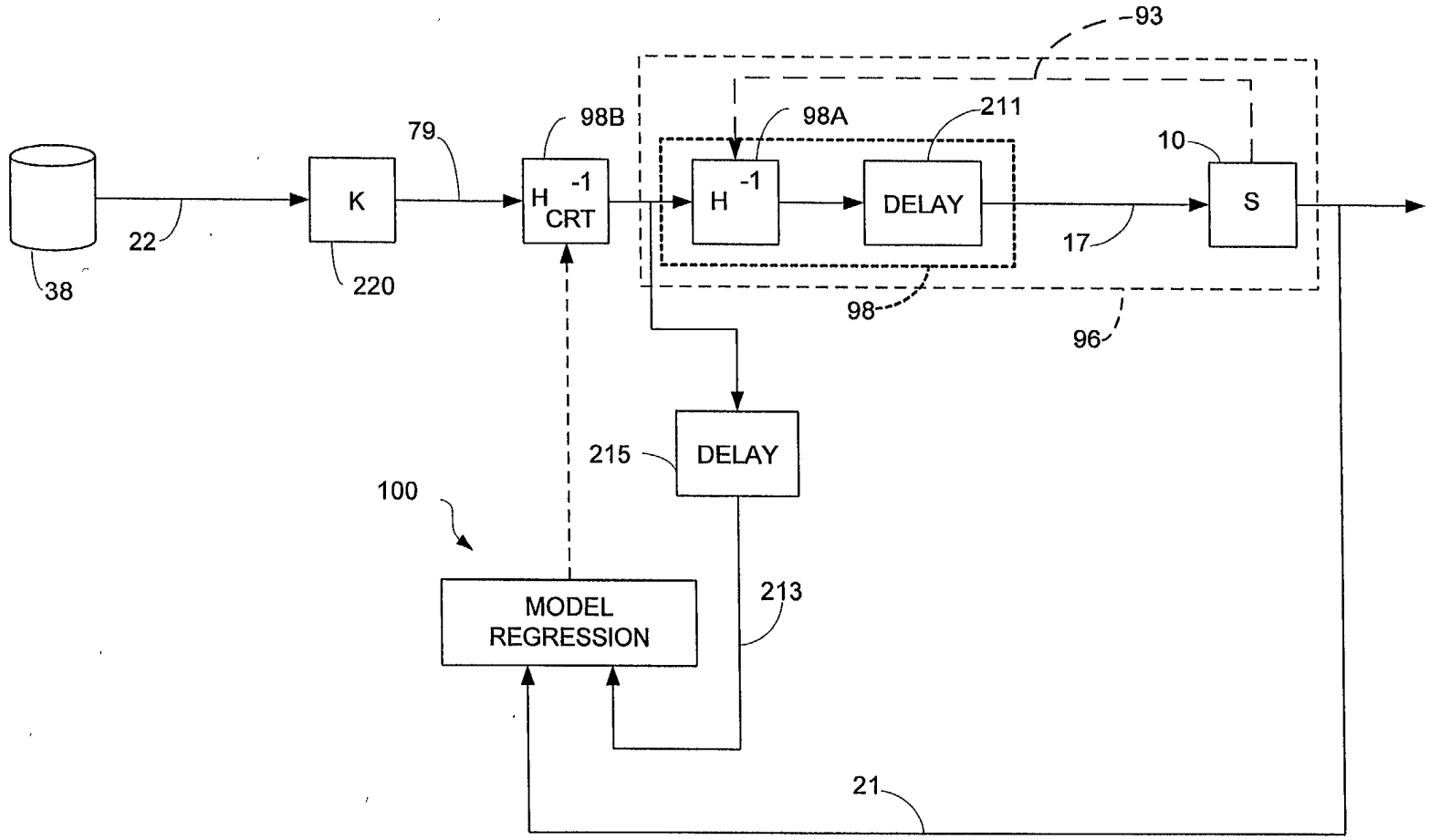


FIG. 17

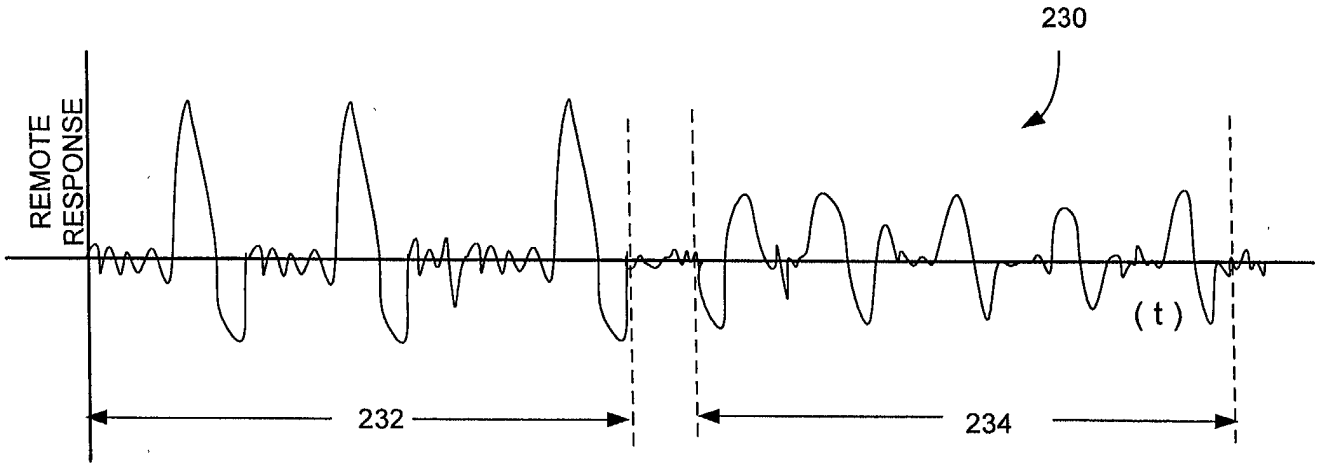


FIG.18

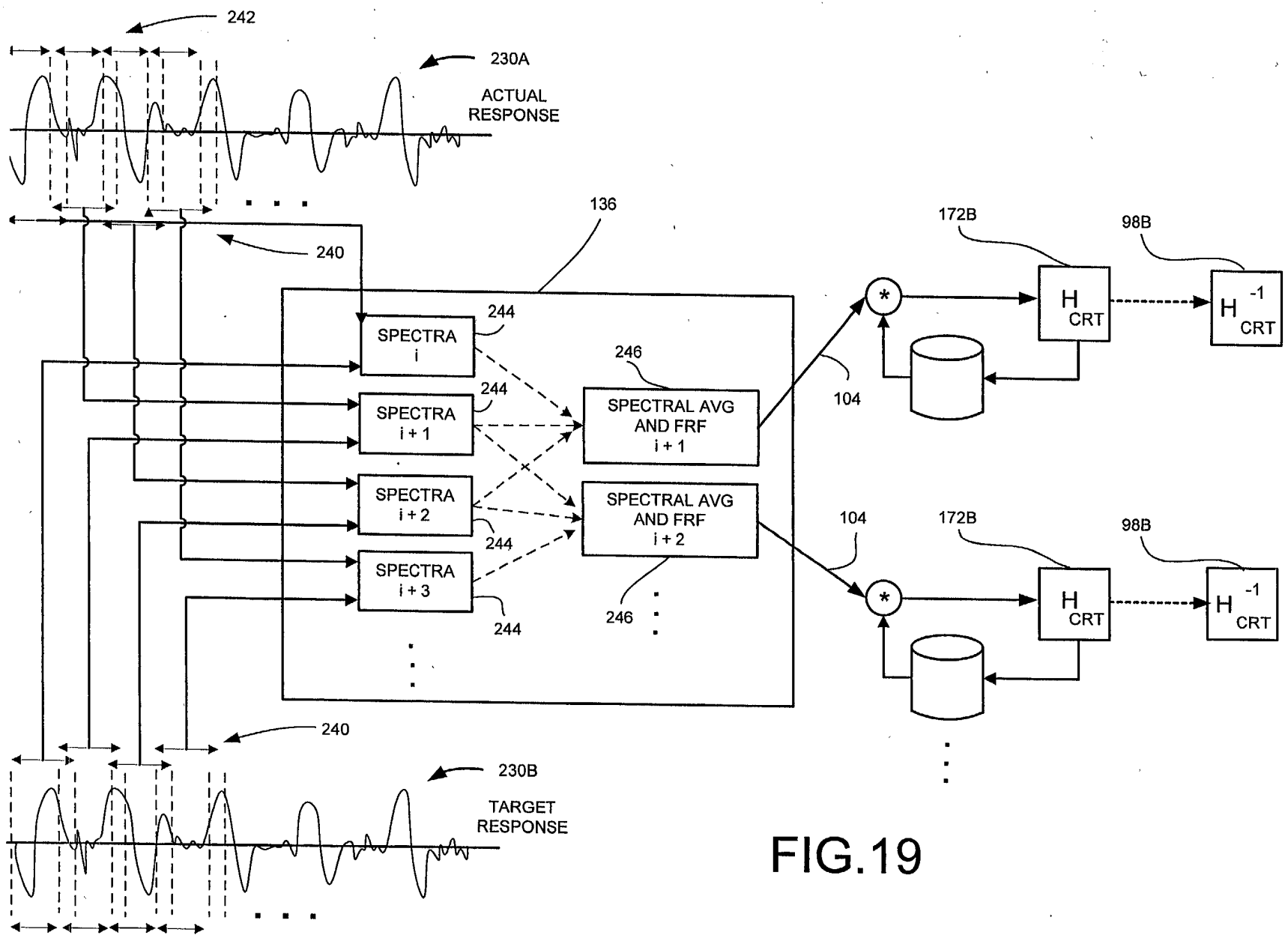


FIG.19

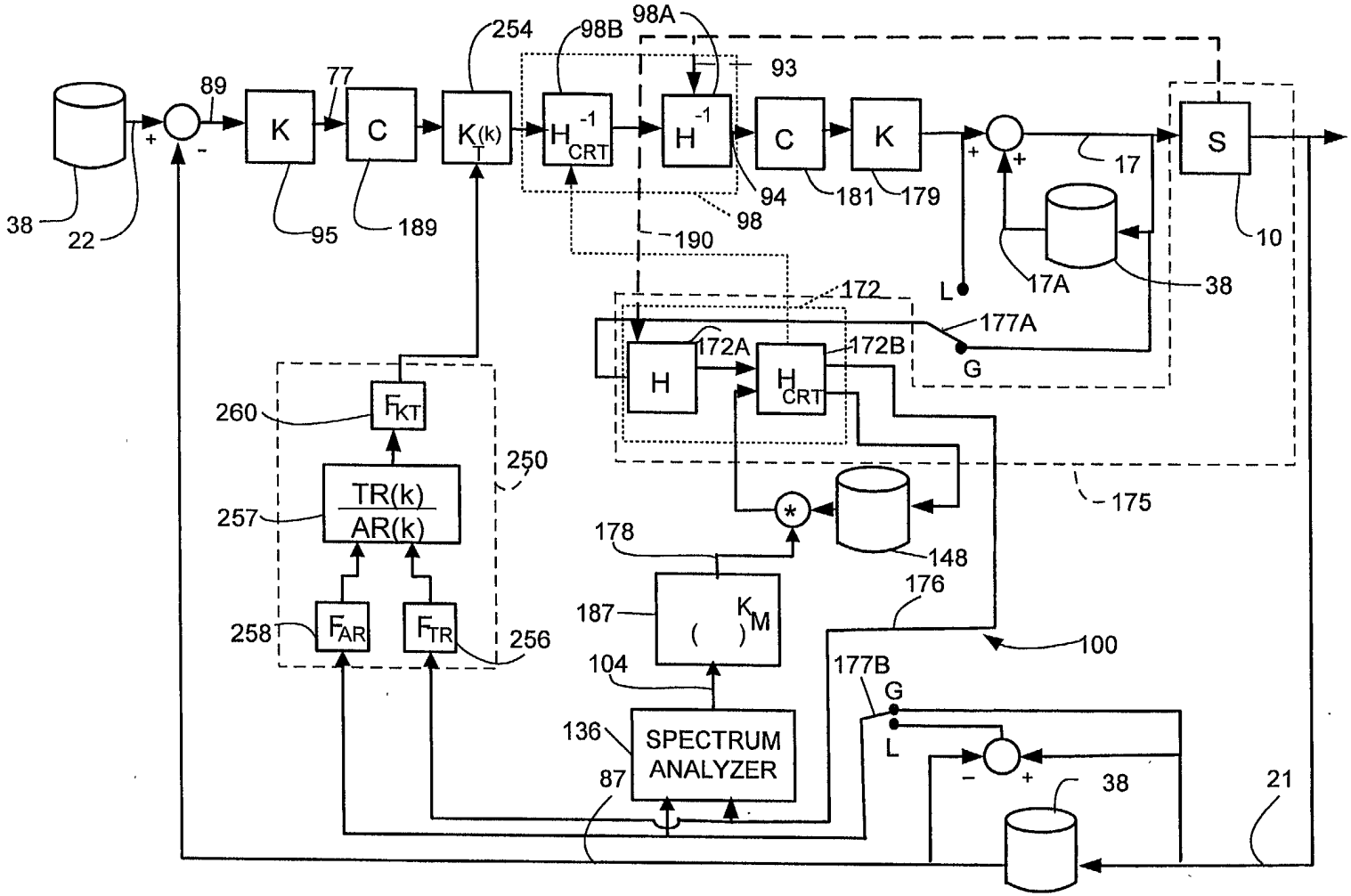


FIG. 20